

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the above-identified application.

Listing of Claims

1-35. (Cancelled)

36-38. (Cancelled)

39. (Currently amended) An apparatus comprising:

a light source configured to produce a coherent beam;

a beam splitter configured to split the coherent beam into

an object beam, and

a reference beam;

a material holder configured to hold [[ing]] a holographic recording material;

an object beam unit configured to[[:]]

display a rendered image,

condition the object beam with the rendered image, and

cause the object beam to interfere with the reference beam at a location for an elemental hologram of a holographic stereogram on the holographic recording material;

a voxel-control lens located in [[the]] a path of the object beam and positioned at a distance from the location for the elemental hologram, wherein the distance position is based at least in part on[[:]]

a focal length of the voxel-control lens, and

a size of the elemental hologram; and

a computer programmed to control [[the]] ~~a~~ delivery of the rendered image to the object beam unit.

40. (Currently amended) The apparatus of An apparatus as in claim 39, wherein:
the object beam unit comprises a spatial light modulator (SLM) [[for]] configured to display [[ing]] the rendered image; and
the voxel-control lens has a focal length about equal to a distance between the voxel-control lens and the SLM.

41. (Currently amended) The apparatus of An apparatus for printing holographic stereograms as in claim 39, wherein:

the object beam unit comprises a SLM [[for]] configured to display [[ing]] the rendered image; and
the voxel-control lens has a focal length about equal to a distance between the voxel-control lens and a projected image of the SLM.

42-56. (Canceled)

57. (Currently amended) A method comprising:

selecting a location for an elemental hologram of a holographic stereogram in a holographic recording medium;

generating a coherent light beam;

splitting the beam into

an object beam, and

a reference beam;

rendering an image;

conditioning the object beam with the rendered image, wherein the conditioning ~~of the~~ object beam comprises [[ing:]]

positioning a voxel-control lens at a distance from the selected location for the elemental hologram, wherein the positioning is based at least in part on[[:]])
a focal length of the voxel-control lens, and
a size of the elemental hologram, and
passing the object beam through the voxel-control lens; and
interfering the conditioned object beam with the reference beam at the selected location for the elemental hologram.

58-64. (Canceled)

65. (Currently amended) The method of claim 57, wherein the voxel-control
voxel-control lens is positioned at a location selected to:
change the size of at least one voxel of the holographic stereogram; and ~~and to~~
make the rendered image, ~~as seen~~ from [[the]] a viewpoint of the selected location for
the elemental hologram, appear at a greater apparent distance relative to the
holographic recording material.

66. (Currently amended) The method of A method as in claim 57, wherein:
the conditioning ~~of the object beam with the rendered image~~ comprises displaying the
rendered image on a spatial light modulator (SLM); and
the focal length of the voxel-control lens is about equal to a distance between the voxel-
control lens and the SLM.

67. (Currently amended) The method of A method as in claim 57, wherein:
the conditioning ~~of the object beam with the rendered image~~ comprises displaying the
rendered image on a spatial light modulator (SLM); and
the focal length of the voxel-control lens is about equal to a distance between the voxel-
control lens and a projected image of the SLM.

68. (New) A system comprising:

means for selecting a location for an elemental hologram of a holographic stereogram in a
holographic recording medium;

means for generating a coherent light beam;

means for splitting the beam into

an object beam, and

a reference beam;

means for rendering an image;

means for conditioning the object beam with the rendered image, comprising

means for positioning a voxel-control lens at a distance from the selected location
for the elemental hologram, wherein the positioning is based at least in
part on

a focal length of the voxel-control lens, and

a size of the elemental hologram, and

means for passing the object beam through the voxel-control lens; and

means for interfering the conditioned object beam with the reference beam at the selected
location for the elemental hologram.

69. (New) The system of claim 68, wherein the means for positioning is configured to
position the voxel-control lens at a location selected to:

change the size of at least one voxel of the holographic stereogram; and

make the rendered image, from a viewpoint of the selected location for the elemental
hologram, appear at a greater apparent distance relative to the holographic
recording material.

70. (New) The system of claim 68, wherein:

the means for conditioning the object beam with the rendered image comprises

means for displaying the rendered image on a spatial light modulator (SLM); and the focal length of the voxel-control lens is about equal to a distance between the voxel-control lens and the SLM.

71. (New) The system of claim 68, wherein:

the means for conditioning the object beam with the rendered image comprises means for displaying the rendered image on a spatial light modulator (SLM); and the focal length of the voxel-control lens is about equal to a distance between the voxel-control lens and a projected image of the SLM.